

REMARKS

The following remarks herein are responsive to the Office Action mailed on 03/31/05. Claims 1-37 are pending in this application. Dependent claims 7, 19 and method claims 25-37 have been provisionally canceled. Dependent claims 8 and 20 have been amended to correct for dependency informalities due to the cancellation of claims 7 and 19.

Accompanying this communication is a new set of 4 drawings (labeled as replacement sheets) to reflect some of the changes requested by the Examiner, i.e., "folded geometry" (claims 6 and 17), "square geometry" (claims 8 and 20), and "zonal plate" (claims 7 and 18) as directed under 37 CFR §1.83(a). "Annotated Marked-up Drawings" also accompany this communication per the specifications mandated under CFR 1.121(d) and as requested by the Examiner. Specifically, proposed changes to address the zonal plate issue are shown in red in the "Annotated Marked-up Drawings" of Fig. 1 and Fig. 2. In addition, the proposed Fig. 4 is shown all in red in the "Annotated Marked-up Drawings" to indicate that the entire figure is new. Also, a corresponding change in the drawing numbers (i.e., 3/4 etc.) are shown in red for each respective "Annotated Marked-up Drawing".

The specification has been amended accordingly to reflect the changes to Fig. 1, Fig. 2 and the addition of Fig. 4, and to also address the objection to the specification of the following informalities, i.e. "folded geometry" and "square geometry". Finally, the abstract of the disclosure has been amended to address the objection by the

Examiner with respect to a spelling error. By the following remarks, the pending claims are now believed to be in condition for allowance and are presented for reconsideration.

Accordingly, remaining pending claims 1-6, 8-18, and 20-24 are presented for examination and are believed to be in condition for allowance in light of the amendments and remarks infra. Support for the amendments can be found, inter alia, in Applicants' specification and original claims. Also accompanying this communication is a petition to extend the prosecution on this matter for three months and the appropriate fee.

Discussion of the Office Action

In the Office Action of March 31, 2005, the Examiner objected to the drawings under 37 C.F.R. §1.83(a), she objected to the Specification relating to the description of "folded geometry" and "square geometry," she objected to the abstract of the disclosure based on a spelling error, she rejected claims 1, 4-14, 17-23, 25-26, 28-29 and 31-37 under 35 U.S.C. §102(b) as being anticipated by Ezra et al. (U.S. Patent No. 5,703,717), and she rejected claims 2, 15-16, 27 and 30 under 35 U.S.C. §103(a) as being unpatentable over Ezra et al. (U.S. Patent No. 5,703,717) in view of Mantradavi et al. (U.S. Patent No. 5,206,499).

Objection to the Drawings

The objections to the drawings with respect to "folded geometry", "square geometry" and "zonal plate" have been overcome by the amendments thereto as discussed above in the remarks section.

Objection to the Specification

The objections to the specification have been overcome by the amendments thereto.

Objection to the Abstract of the Disclosure

The objection to the abstract of the disclosure has been overcome by the amendments thereto.

Rejection of claims 1, 4-14, 17-23, 25-26, 28-29 and 31-37 under 35 U.S.C. §102(b)

As set forth above, claims 1, 4-14, 17-23, 25-26, 28-29 and 31-37 stand rejected under 35 U.S.C. §102(b) as being anticipated by Ezra et al. (U.S. Patent No. 5,703,717). Applicants must respectfully traverse such a rejection.

Under MPEP 706.02(a), it is well established that for a reference to support a rejection under 35 USC §102, that reference must teach each feature recited in the claims so rejected.

Moreover, the Federal Circuit in *Row v. Dror*, 42 USPQ 2d 1550, 1553 (Fed. Cir. 1997) (quoting *Kloster Speedsteel AB v. Crucible, Inc.*, 230 USPQ 81, 84 (Fed. Cir. 1986)) stated:

"A prior art reference anticipates a claim only if the reference discloses, either expressly or inherently, every limitation of the claim. . . . "[A]bsence from the reference of any claimed element negates anticipation."

Regarding independent claim 1, 12, and 13, The Examiner states, "Ezra et al. (US Patent Number 5,703,717) discloses: "an autostereoscopic projection viewer comprising one or more pairs of projection lenses (28) configured to correspond to one

or more pairs of respective projection displays (31), **an image corrector plate (i.e., SLM)** arranged about an image plane of each said projector lenses, wherein said image corrector plate is capable of correcting for predetermined optical aberrations (column 2, lines 65-67); and a field lens (37), wherein said field lens (37) is arranged at a predetermined distance from said projector lenses and said image corrector plate to produce one or more predetermined magnified stereoscopic aberration corrected images of said projection displays (column 4, line 64 through column 5, line 7) at predetermined one or more pairs of optical eyezones (31).

Applicant's claim 1 is as follows:

An autostereoscopic projection viewer, comprising:
one or more pairs of projector lenses configured to correspond to one or more pairs of respective projection displays,
an image corrector plate arranged about an image plane of each said pair of projector lenses, wherein said image corrector plate is capable of correcting for predetermined optical aberrations; and
a field lens, wherein said field lens is arranged at a predetermined distance from said projector lenses and said image corrector plate to produce one or more predetermined magnified stereoscopic aberration corrected images of said projection displays at predetermined one or more pairs of optical eyezones.

Applicant's claim 12 is as follows:

An autostereoscopic projection viewer, comprising:

up to about three pairs of projector lenses configured to correspond respectively to at least three pairs of projection displays,

an image corrector plate arranged at an optical image plane for each said pair of projection lenses, wherein said image corrector plate is capable of correcting for predetermined optical aberrations; and

a pair of Fresnel lenses adapted to operate collectively as a field lens, wherein said pair of Fresnel lenses are arranged at predetermined distances from said projection lenses and said image corrector plate to produce one or more predetermined stereoscopic aberration corrected images of said projection displays at predetermined one or more pairs of optical eyezones.

Applicant's claim 13 is as follows:

An autostereoscopic projection viewer, comprising:

a pair of projector lenses, configured to correspond to a respective pair of projection displays and direct optical rays from said projection displays,

a prismatic Fresnel beamsplitter, arranged substantially about an image plane of each said pair of projector lenses and adapted to produce a plurality of predetermined optical eyezones,

an image corrector plate arranged to receive and redirect said optical rays received from said Fresnel beamsplitter, wherein one or more aberrations produced by said viewer are corrected; and

a field lens arranged at predetermined distances from said projection lenses and said Fresnel beamsplitter to produce one or more predetermined magnified stereoscopic aberration corrected images of said projection displays at said eyezones

Applicants respectfully submit that Ezra et al. **does not disclose nor suggest an image corrector plate** as disclosed and claimed by Applicant (as shown bolded above in each of original claims 1, 12, and 13). The Examiner, as set forth above, cites lines 65-67, column 2 and states that Ezra et al. discloses “an image corrector plate (i.e., SLM)...” That particular cited section in Ezra et al. discloses offsetting SLMs (note the plurality) to partially correct for keystone distortion but to primarily operate as part of the display devices to be reimaged by a projection lens (see column 3, lines 35-38) but such devices do not operate as nor are an image corrector plate as claimed and as disclosed by Applicant.

In particular and conversely to Ezra et al., Applicant claims an image corrector plate that is a special optical element (see last sentence of paragraph [00023]) that “can redirect rays in a controlled fashion using holographically imprinted information.” Such an element is not suggested or disclosed in Ezra et al. Specifically, the redirected rays by an image corrector plate of the present invention is not utilized to correct for keystone distortion as the SLMs in Ezra et al. but instead (see first sentence of paragraph [00023], page 9) “can be designed to be a combination of a zonal plate corrector to correct for chromatic dispersion of the Fresnel lenses, a conjugation corrector to invert phase perturbations produced by the Fresnel lenses, and an eyebox

projector to reproduce a viewing window at a predetermined optical eyezone or any combination of the above.” Keystone correction in the present invention is addressed but is corrected by tilting eyezones (e.g., see paragraph [00046]) and not by the method cited in Ezra et al.

Accordingly, because Ezra et al. does not teach/disclose every limitation to warrant an anticipation rejection as mandated under MPEP 706.02(a) and by *Row v. Dror* in quoting *Kloster Speedsteel AB v. Crucible, Inc.*, Applicant submits that the rejection of independent claims 1, 12, and 13 under 35 U.S.C. §102(b) is deemed improper and is requested to be removed.

Regarding dependent claim 7, such claim has been provisionally canceled. In light of the cancellation of claim 7, the rejection of claim 7 under 35 U.S.C. §102(b) is moot.

Regarding dependent claims 4-6, 8-11, 14, and claims 17-23; claims 4-6 and 8-11 either directly or indirectly depend from independent claim 1 and thus contain all the limitations of claim 1 and dependent claims 17-23 now all directly depend from independent claim 13 and thus contain all the limitations of claim 13. In light of the discussion above regarding, the rejection of claims 1, 12 and 13 under 35 U.S.C. §102(b), the rejection of claims 5-14, and 17-23 under 35 U.S.C. §102(b), which contain the **image corrector plate limitation** of the respective independent claim from which they depend from, is also deemed improper and should be withdrawn.

Regarding method claims 25-26, 28-29 and 31-37; such claims have been provisionally canceled as set forth above. In light of the cancellation of such claims, the

rejection of method claims 25-26, 28-29 and 31-37 under 35 U.S.C. §102(b) is deemed moot.

Rejection of claims 2, 15-16, 27 and 30 under 35 U.S.C. §103(a)

As set forth above, claims 2, 15-16, 27 and 30 stand rejected under 35 U.S.C. §103(a) over Ezra et al. (U.S. Patent No. 5,703,717) in view of Mantradavi et al. (U.S. Patent No. 5,206,499). Applicants must traverse such a rejection.

Under MPEP §2143.03:

“To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” *In re Royka*, 490 F. 2d 981, 180 USPQ 580 (CCPA 1974). Applicant respectfully traverses such a rejection.

In addition:

Under MPEP §2143.01, “If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious.” *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Regarding claims 2, and 15-16, such claims either directly or indirectly depend upon base claim 1 and thus contain each and every limitation in claim 1 (i.e., **an image corrector plate**) in addition to their own limitations. Applicant submits that Ezra et al alone or in combination the secondary reference Mantradavi et al does not teach or suggest all of the claims limitations of claims 2, 15 and 16, i.e., the image corrector plate as discussed above. Applicant thus submits that a prima facie case of obviousness has not been established for any of the rejected claims because they depend from an

independent claim (claim 1) that has a limitation not taught or disclosed by the cited references alone or in combination. It also necessarily follows that independent claim 1 is nonobvious.

Accordingly, Applicant respectfully submits that the rejection of dependent claims 2, 15 and 16 under 35 U.S.C. §103(a), which either directly or indirectly depend from claim 1 and thus contain all of the limitations of such claim, is deemed improper as mandated under MPEP §2143.03 as well as under §2143.01 and should be removed.

Regarding the rejection of claims 27 and 30, such claims have been provisionally canceled as set forth above. In light of the above, the rejection of dependent claims 27 and 30 under 35 U.S.C. §103(a) is deemed moot.

Allowable Subject Matter

Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Claim 8 depends from claim 1, which stands rejected under 35 U.S.C. 102(b).

In light of arguments as set forth above with respect to the rejection of claim 1 under 35 U.S.C. 102(b), Applicant respectfully submits that the objection to claim 8, which depends from claim 1 and thus contains all the limitations of claim 1, has been overcome and therefore has not been rewritten or amended.

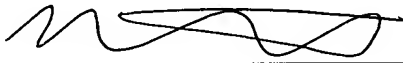
Conclusion

Based on arguments as discussed above, each objection and rejection is believed overcome and Applicants respectfully request allowance of the pending claims. Thus, this application is deemed to be in condition for allowance based on remaining pending claims 1-6, 8-18, and 20-24.

In the event that the Examiner finds any remaining impediment to the prompt allowance of these claims that can be clarified with a telephone conference, she is respectfully requested to initiate the same with the undersigned at (925) 422-3682.

Respectfully submitted,

Dated: 9/23/05



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Annotated Marked-up Drawing

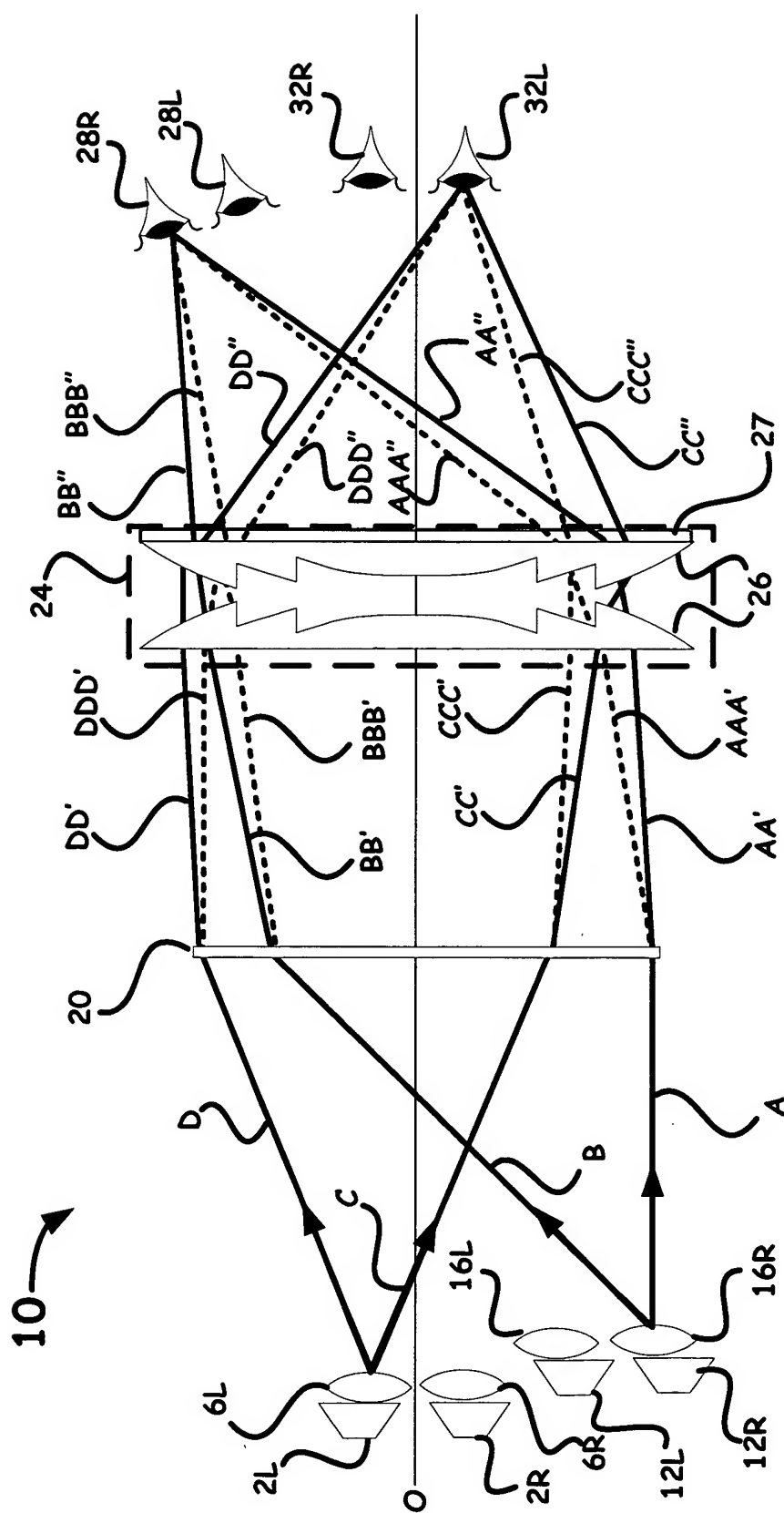


Fig. 1

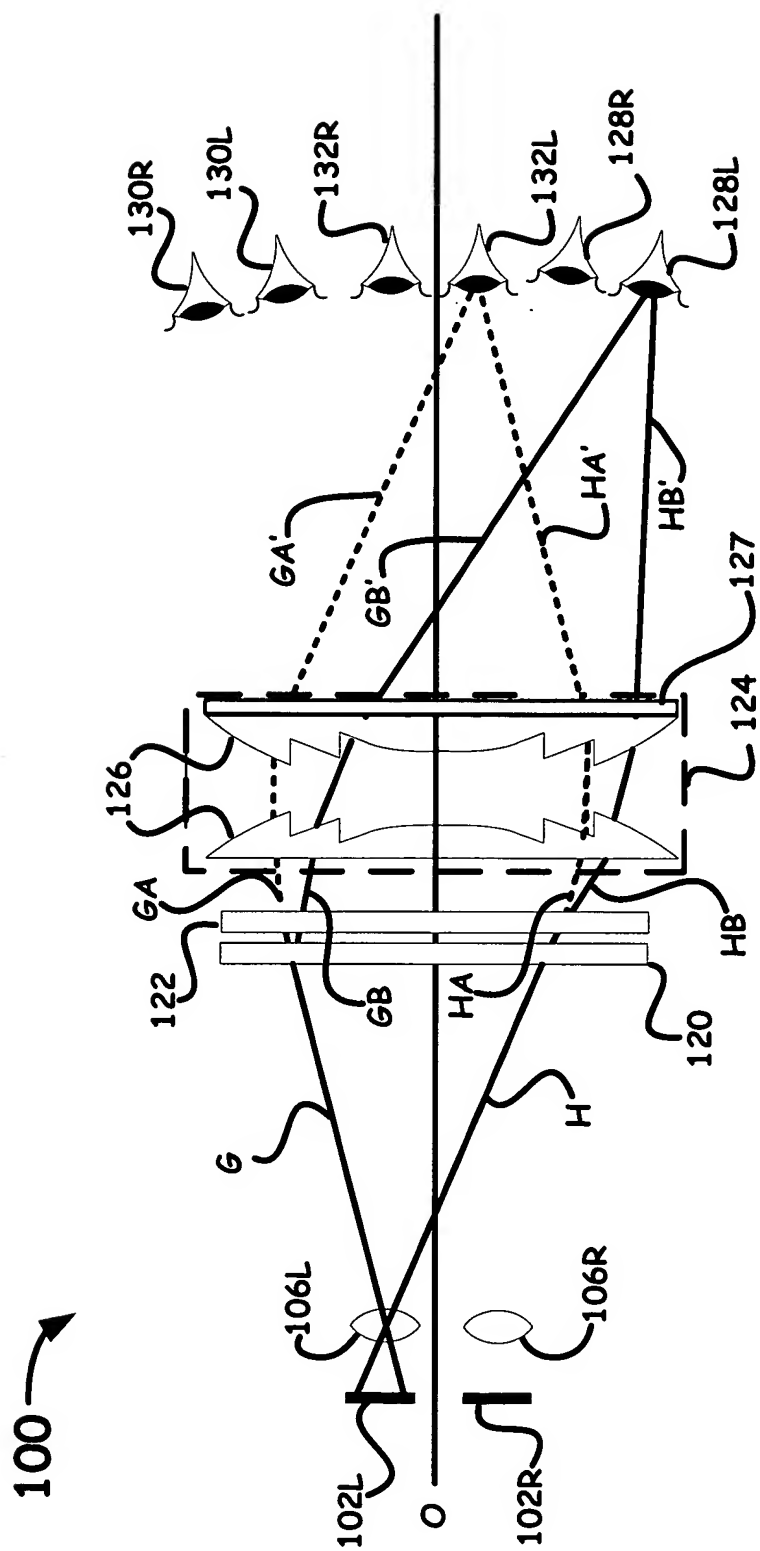


Fig. 2

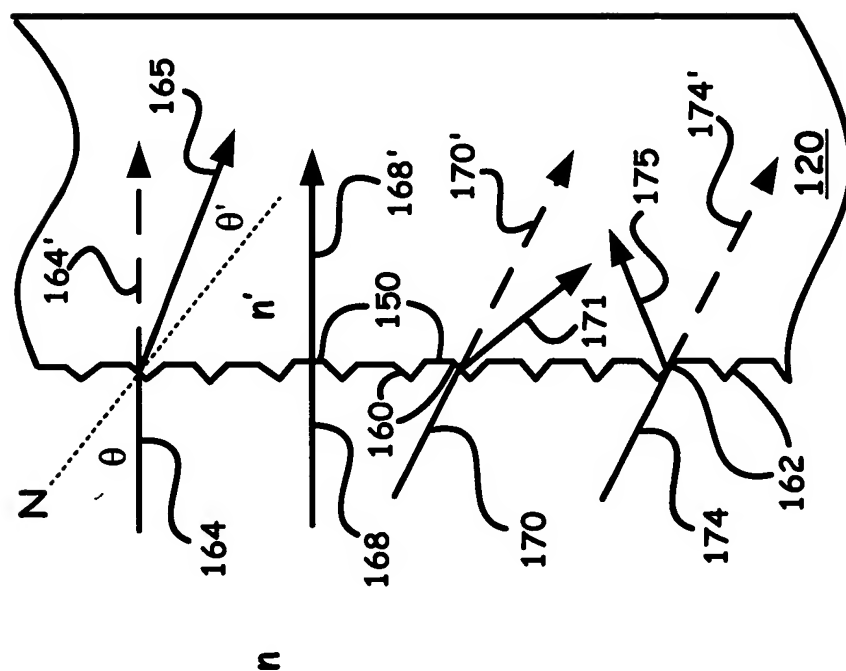


Fig. 3

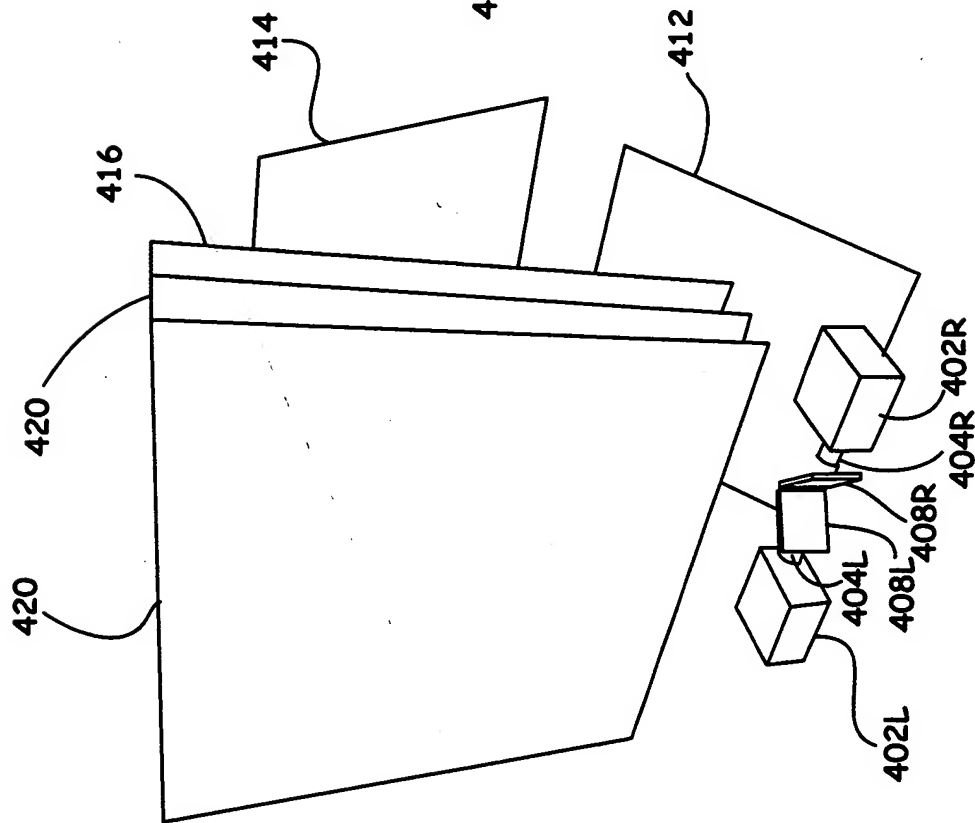


Fig. 4(a)

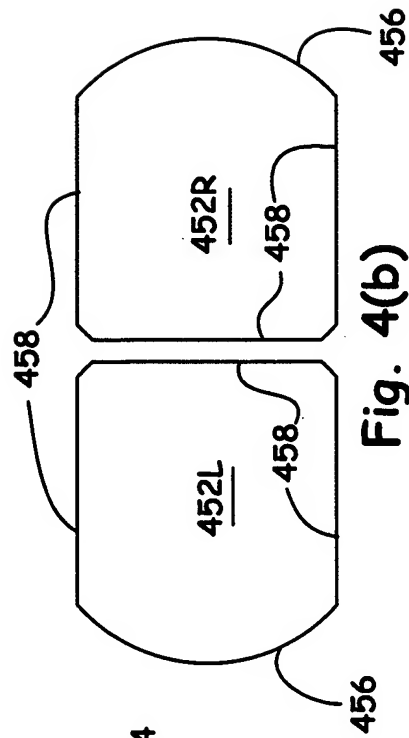


Fig. 4(b)

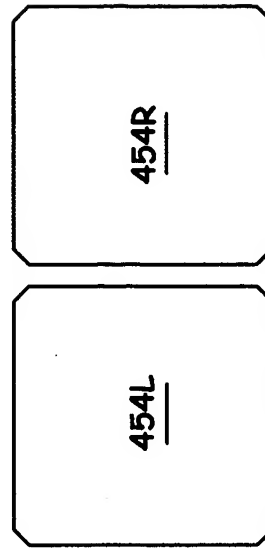


Fig. 4(c)